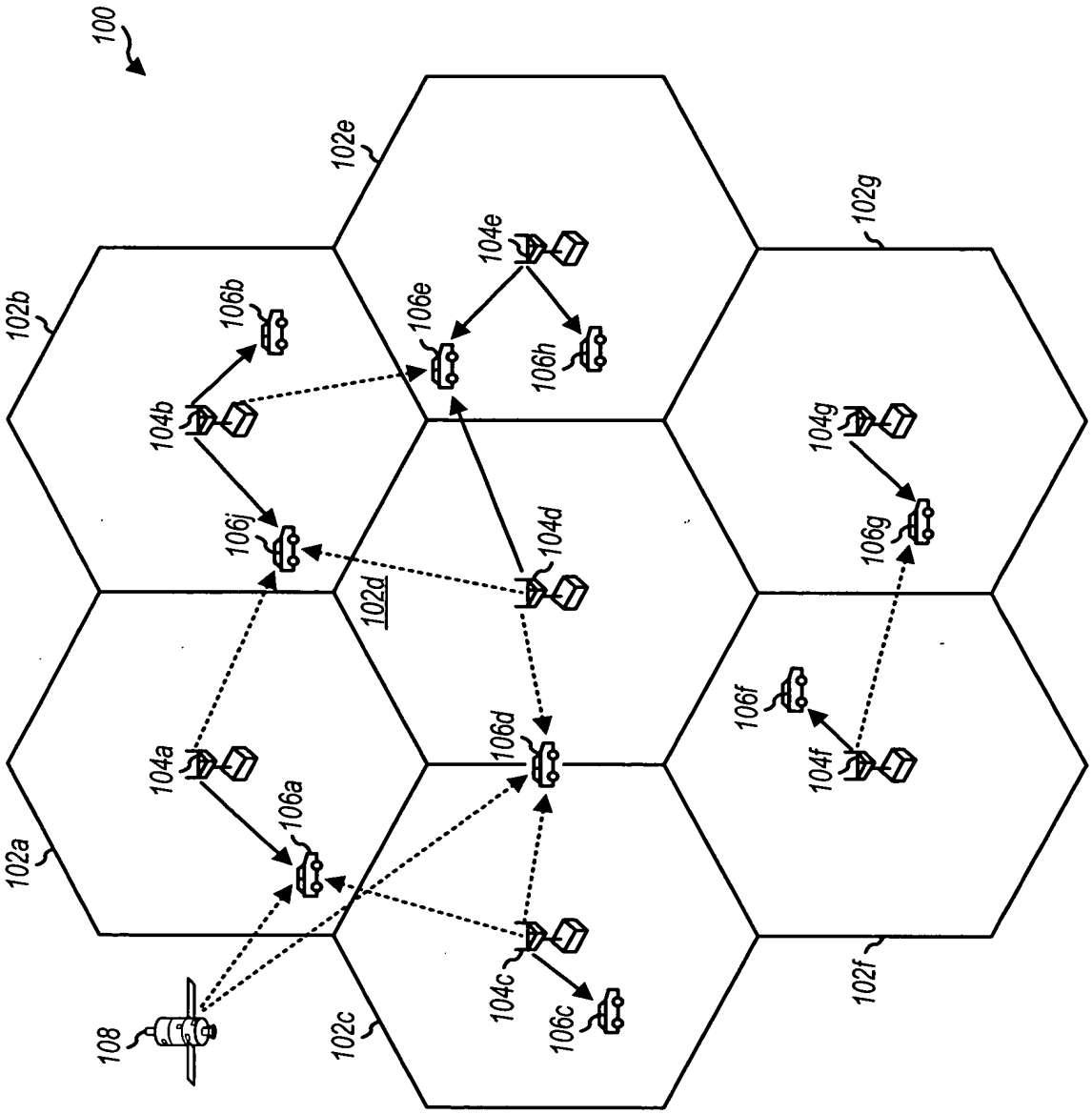
100
102a
102b
102c
102d
102e
102f
102g
104a
104b
104c
104d
104e
104f
104g
106a
106b
106c
106d
106e
106f
106g
106h
106j
108

FIG. 1

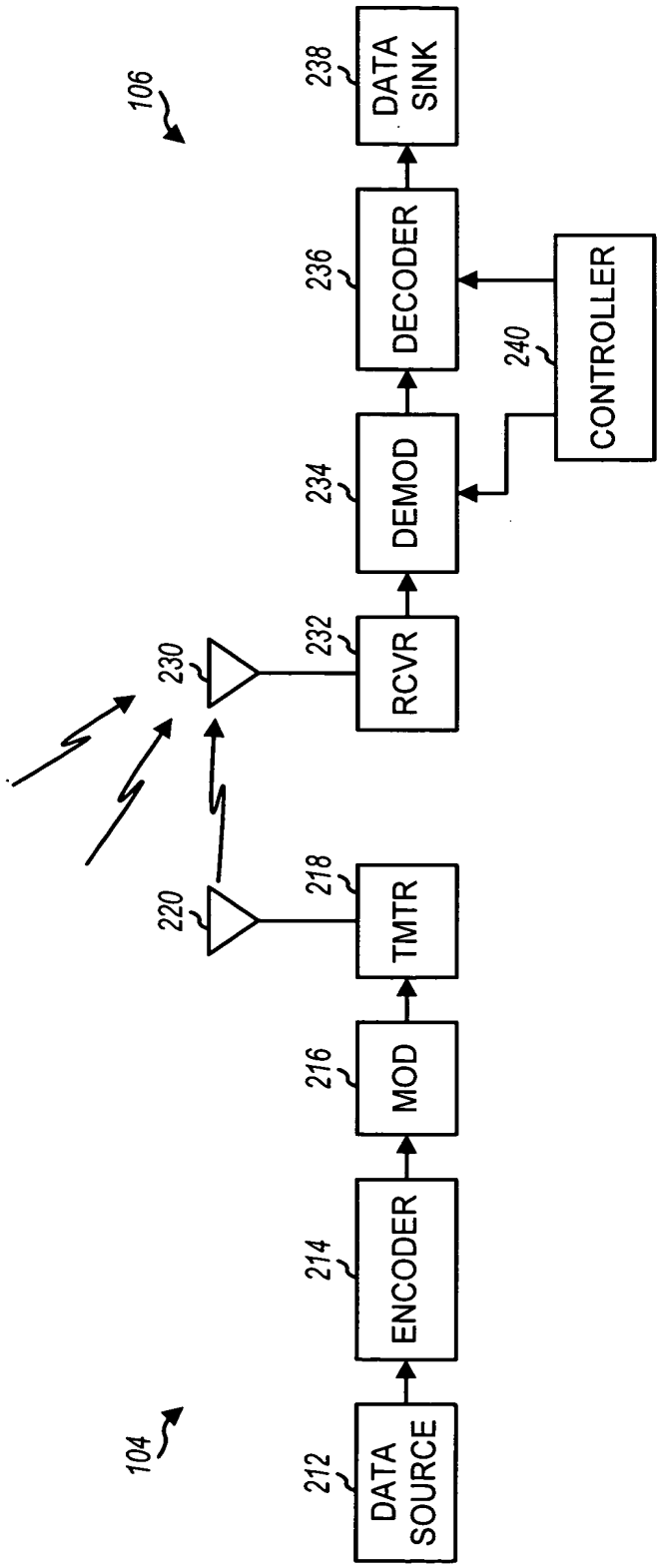
106
238
DATA SINK
236
DECODER
240
CONTROLLER
234
DEMOD
232
RCVR
230
220
218
TMTR
216
MOD
214
ENCODER
104
212
DATA SOURCE

FIG. 2

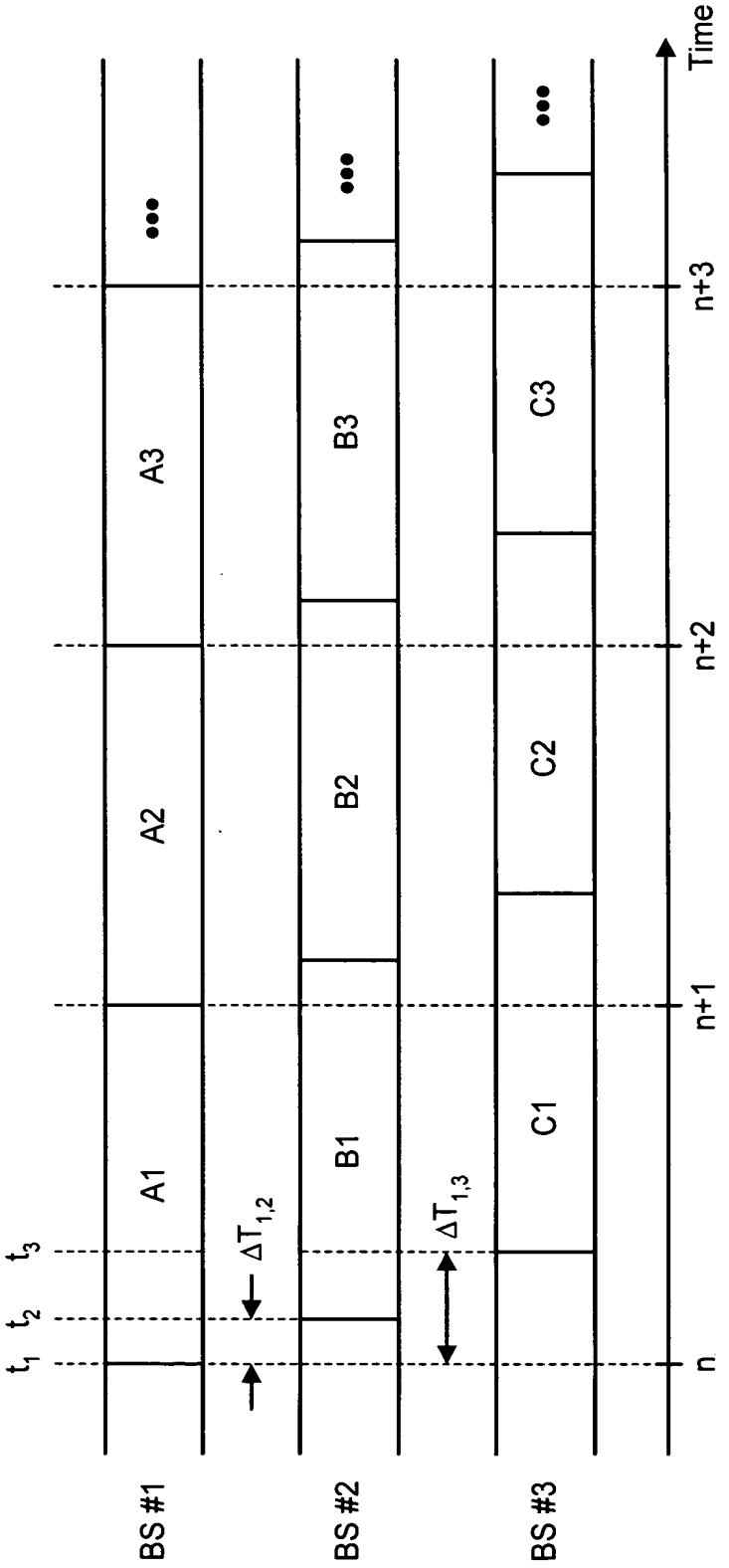
Time
n+3
n+2
n+1
n
A3
A2
A1
B3
B2
B1
C3
C2
C1
$\Delta T_{1,2}$
$\Delta T_{1,3}$
t_1 t_2 t_3
BS #1
BS #2
BS #3

FIG. 3

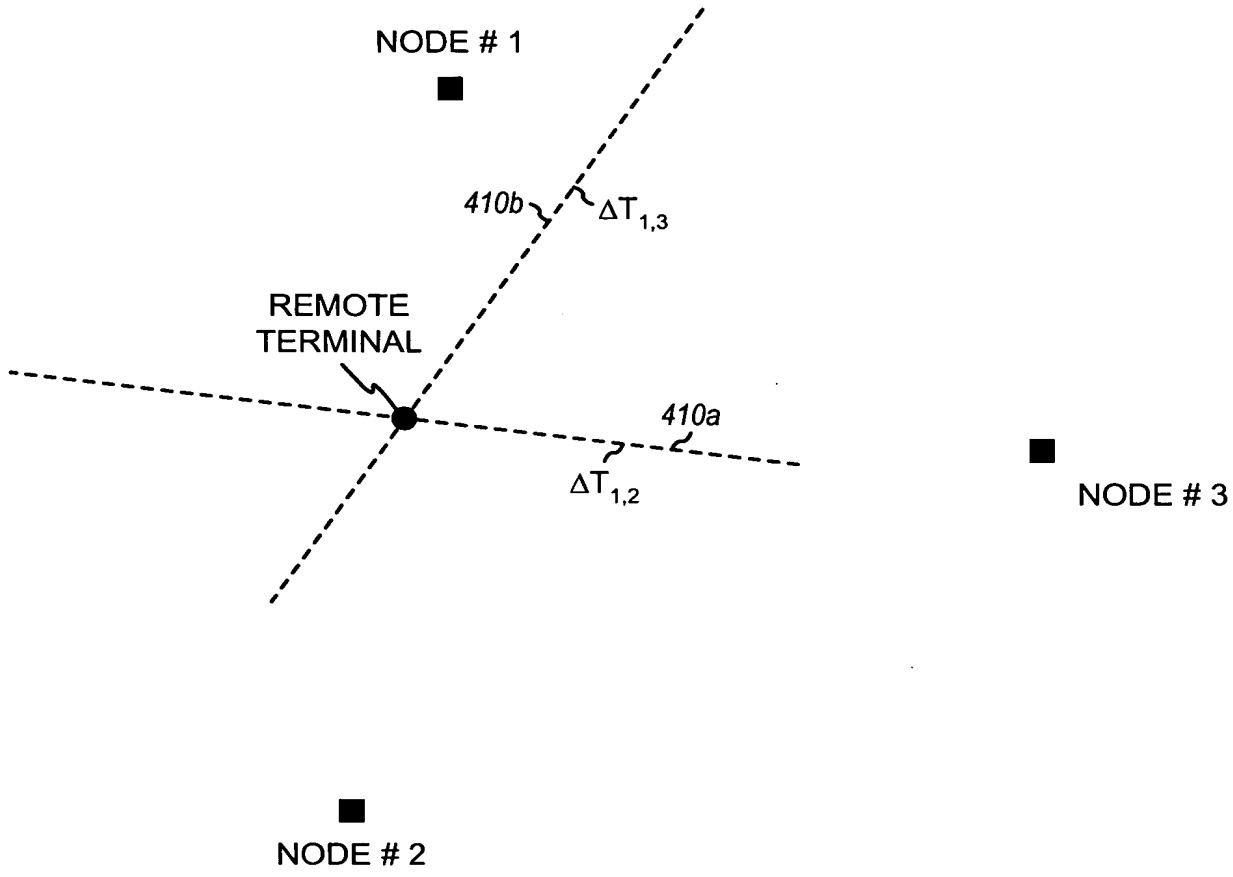
NODE # 1
410b
$\Delta T_{1,3}$
REMOTE TERMINAL
410a
$\Delta T_{1,2}$
NODE # 3
NODE # 2

FIG. 4

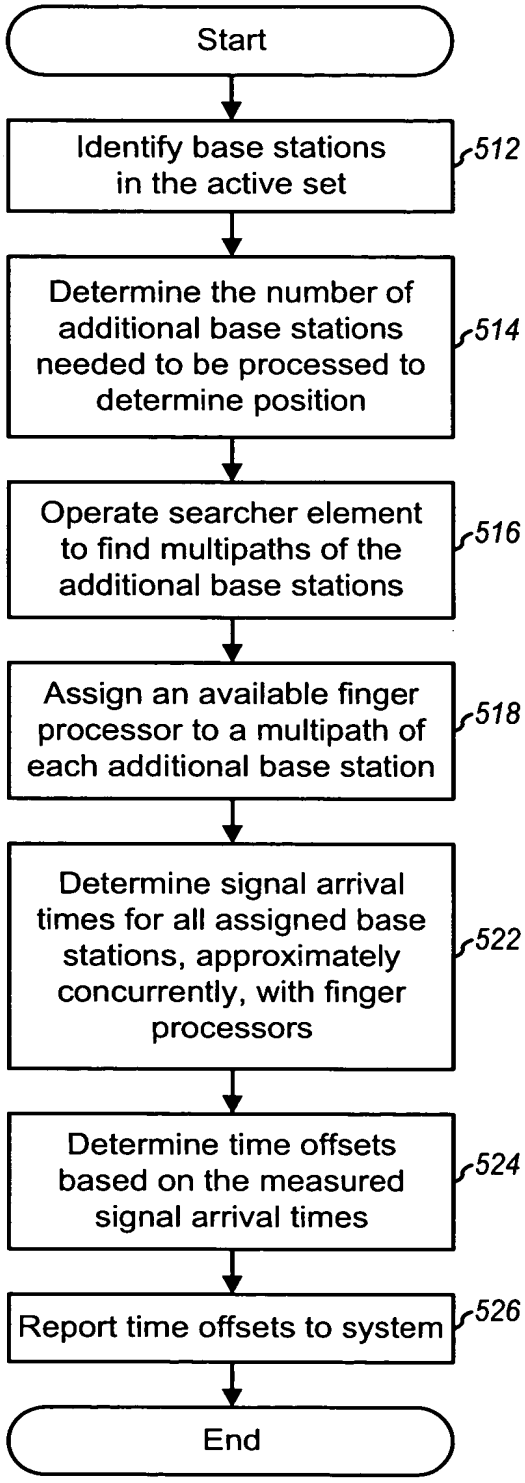
Start
Identify base stations in the active set
512
Determine the number of additional base stations needed to be processed to determine position
514
Operate searcher element to find multipaths of the additional base stations
516
Assign an available finger processor to a multipath of each additional base station
518
Determine signal arrival times for all assigned base stations, approximately concurrently, with finger processors
522
Determine time offsets based on the measured signal arrival times
524
Report time offsets to system
526
End

FIG. 5

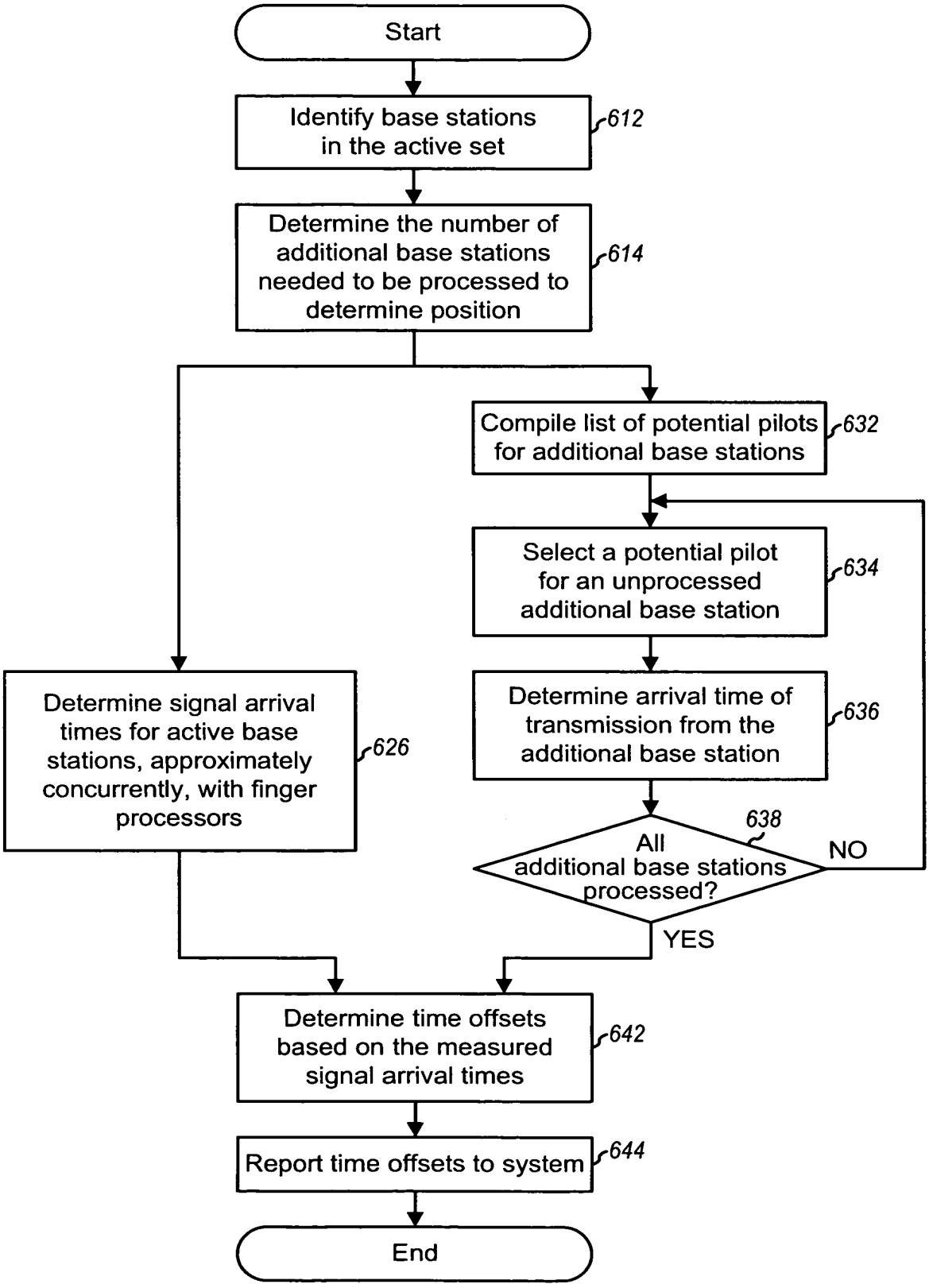
Start
Identify base stations in the active set
612
Determine the number of additional base stations needed to be processed to determine position
614
Compile list of potential pilots for additional base stations
632
Select a potential pilot for an unprocessed additional base station
634
Determine arrival time of transmission from the additional base station
636
All additional base stations processed?
638
NO
YES
Determine signal arrival times for active base stations, approximately concurrently, with finger processors
626
Determine time offsets based on the measured signal arrival times
642
Report time offsets to system
644
End

FIG. 6

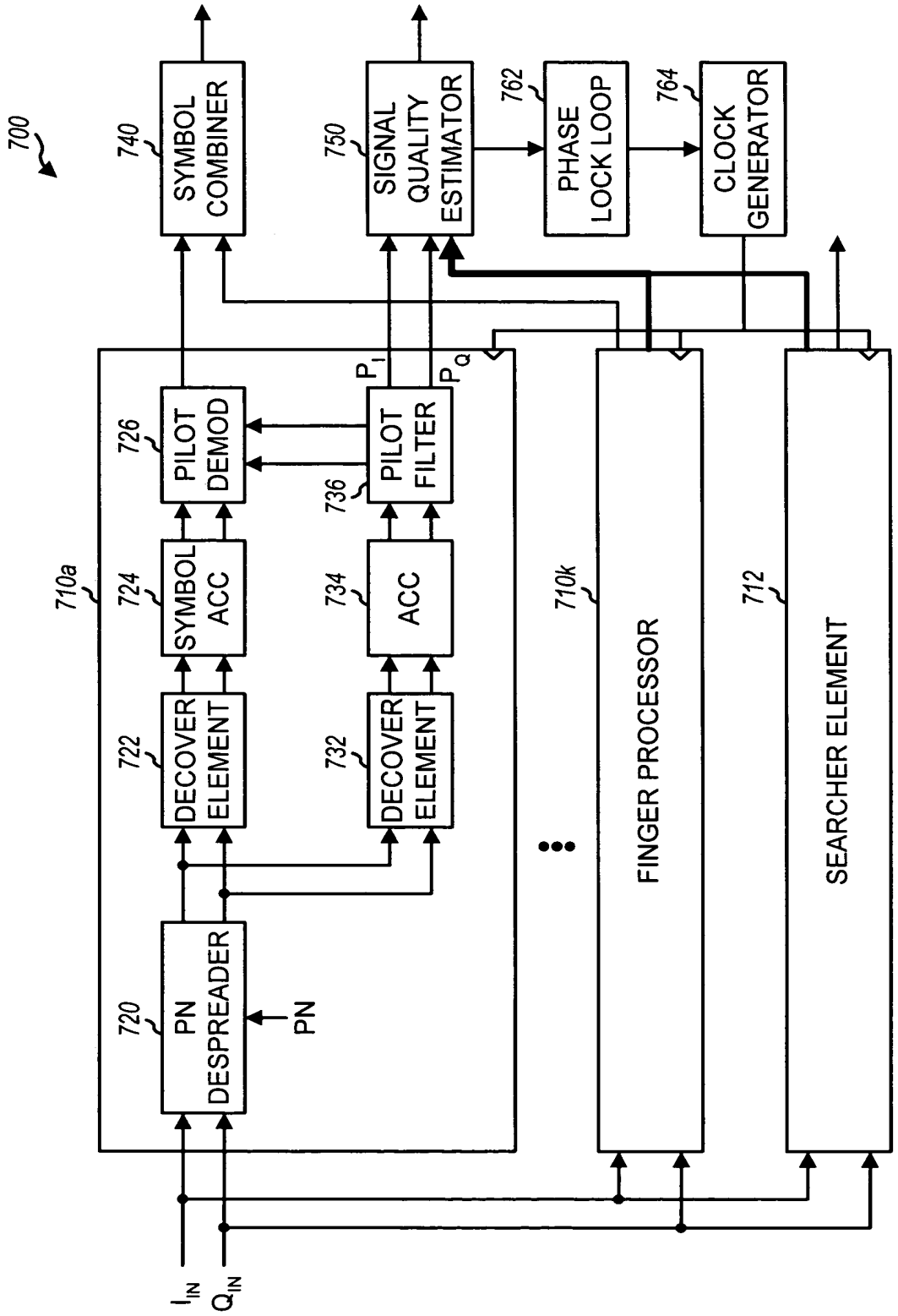
700
740
SYMBOL COMBINER
750
SIGNAL QUALITY ESTIMATOR
762
PHASE LOCK LOOP
764
CLOCK GENERATOR
726
PILOT DEMOD
736
PILOT FILTER
P_I
P_Q
710a
724
SYMBOL ACC
734
ACC
710k
712
722
DECOVER ELEMENT
732
DECOVER ELEMENT
FINGER PROCESSOR
SEARCHER ELEMENT
720
PN DESPREADER
PN
I_{IN}
Q_{IN}

FIG. 7